



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/578,824

05/09/2006

Jurgen Huff

12810-00249-US

3863

23416

7590

08/11/2008

CONNOLLY BOVE LODGE & HUTZ, LLP

P O BOX 2207

WILMINGTON, DE 19899

EXAMINER

RICCI, CRAIG D

ART UNIT

PAPER NUMBER

4161

MAIL DATE

DELIVERY MODE

08/11/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/578,824	<b>Applicant(s)</b> HUFF ET AL.	
	<b>Examiner</b> CRAIG RICCI	<b>Art Unit</b> 4161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 01 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/09/2006</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of the Claims***

1. Claims 1-9 are currently pending and the subject of this Office Action. This is the first Office Action on the merits of the claims.

### ***Information Disclosure Statement***

2. All references have been considered.

### ***Priority***

3. The earliest effective filing date afforded the instantly claimed invention has been determined to be 10/02/2004 as to claims 1-9.

4. Acknowledgment is made of Applicant's claim for foreign priority pursuant to 35 U.S.C. 119(a) and 365(b) based on a prior application filed in the UK on 11/11/2003. The certified copy has been filed in parent Application No. PCT/EP04/11024, filed on 10/02/2004.

### ***Election/Restrictions***

Applicant's election with traverse of alcohols (claim 3), 2-bromo-2-nitropropane-1,3-diol (claim 4) and suspension (claim 7) in the reply filed on 08/01/2008 is acknowledged. Applicant traverses on the ground that there is no undue search burden. Accordingly the species are hereby rejoined and fully examined for patentability under 37 CFR 1.104.

Because all claims previously withdrawn from consideration under 37 CFR 1.142 have been rejoined, **the restriction requirement as set forth in the Office action mailed on 07/03/2008 is hereby withdrawn.** In view of the withdrawal of the restriction

requirement, Applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once the restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1-3, 5, and 7-9 rejected under 35 U.S.C. 102(b) as being anticipated by *Goettsche et al* (US 4,761,179).**

7. Instant claim 1 is drawn to a composition comprising CuHDO and a diluent, wherein the composition has a pH of at least 4, more specifically at least 7 (claim 8) and even more specifically at least 8 to 12 (claim 9). *Goettsche et al* teach a wood preservative comprising CuHDO and water, wherein the pH is not less than 7.5 (Column 1, Lines 46-50). Even more specifically, *Goettsche et al* disclose that “The pH of aqueous impregnating solutions is in general from 8.0 to 10.0, in particular from 8.5 to

9.5" (Column 2, Lines 54-55) and particularly teaches solutions comprising 25% CuHDO and 40% water (Column 4, Lines 10-17, Example 2).

8. Instant claim 2 is drawn to the composition of claim 1 wherein the the CuHDO "is generated in situ within the application or medium using a water-soluble salt of N'-hydroxy-N-cyclohexyldiazenium oxide and a Cu-containing salt" (claim 2). As stated by

**PRODUCT-BY-PROCESS CLAIMS ARE NOT  
LIMITED TO THE MANIPULATIONS OF THE  
RECITED STEPS, ONLY THE STRUCTURE  
IMPLIED BY THE STEPS**

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed.

MPEP 2113: Cir. 1985) (citations omitted)

Accordingly, the

process by which the composition of claim 1 is generated does not carry patentable weight and claim 2 is thus rejected for the reasons stated above as applied to claim 1.

9. Instant claims 3 and 5 are drawn to the composition of claim 1 additionally containing another microbicidally active component selected from the group of components recited which includes "alcohols" as well as "quaternary ammonium compounds" (claim 3) and, more specifically, wherein the concentration of each component (A) and (B) is from 1-99% by weight (claim 5). In regard to claim 5, component (A) refers to "CuHDO and a diluent" and component (B) refers to "another microbicidally active component" such as, for example, an alcohol. *Goettsche et al*

Art Unit: 4161

teach "the wood preservatives can also contain an alkanolamine, eg. ethanolamine" (Column 1, Lines 66-67) which is a primary alcohol. Furthermore, *Goettsche et al* specifically disclose formulations containing 25% CuHDO, 25% water, and 12.5% ethanolamine (Column 4, Lines 45-50) which anticipates the range recited by instant claim 5. As stated in MPEP 2131.03:

**I. A SPECIFIC EXAMPLE IN THE PRIOR ART WHICH IS WITHIN A CLAIMED RANGE ANTICIPATES THE RANGE**

"[W]hen, as by a recitation of ranges or otherwise, a claim covers several compositions, the claim is 'anticipated' if *one* of them is in the prior art." *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) (citing *In re Petering*, 301 F.2d 676, 682, 133 USPQ 275, 280 (CCPA 1962)) (emphasis in original)

. In the instant case, the prior art

teaches concentrations of components (A) and (B) which are each within 1 to 99 wt% as recited by instant claim 5.

10. Instant claim 7 is drawn to the composition of claim 1 in the form of a "paste, emulsion or solution or suspension" (claim 7). *Goettsche et al* specifically teach the invention in the form of "an aqueous solution" (Column 1, Line 44).

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. **Claims 1, 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Goettsche et al* (US 4,761,179).**

15. Instant claim 6 is drawn to the composition of claim 3 wherein the said respective amounts of components (A) and (B) are 40 to 60 wt% each. As discussed above, *Goettsche et al* teach instant claims 1 and 3 wherein the other microbicidally active component (B) is an alcohol. Moreover, *Goettsche et al* teach that "suitable concentrations contain, for example, from 5 to 50% by weight of CuHDO" (Column 2, Lines 8-9). Even more specifically, *Goettsche et al* particularly teach a formulation

Art Unit: 4161

comprising 25% CuHDO and 20% water (Column 4, Lines 28-33, Example 3) which teaches a concentration of component (A) within the range of 40 to 60% as recited by instant claim 6. However, *Goettsche et al* do not teach alcohols in the range of 40 to 60% by weight. Rather, *Goettsche et al* teach as suitable concentrations "not more than 20% by weight of an alkanolamine" (Column 2, Line 15). However, *Goettsche et al* **also** teach compositions of claim 1 which include a quaternary ammonium salt, which encompasses a microbicidally active component (B) as recited by claim 3. Furthermore, *Goettsche et al* teach "suitable concentrations contain, for example... not more than 50% by weight of a quaternary ammonium salt" (Column 2, Lines 8-16). As

In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990)

stated in MPEP 2144.05: In the instance case, the claimed ranges of component (B) as recited by instant claim 6 overlap ranges disclosed by the prior art. Accordingly, claim 6 is *prima facie* obvious.

16. **Claims 1 and 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Goettsche et al* (US 4,761,179) in view of *Lorentzen et al* (US 5,332,765).**

17. Instant claim 1 is taught by *Goettsche et al* as discussed above. Furthermore, *Goettsche et al* teach instant claim 3 wherein the other microbicidally active component is an alcohol.

18. However, *Goettsche et al* do not teach the composition of claim 3 wherein the other active component is "2-bromo-2-nitropropane-1,3-diol", as recited by instant claim 4. *Lorentzen et al* teach microbicidal agents useful in the protection of industrial



materials. Moreover, *Lorentzen et al* teach that “the activity and the spectrum of action of the active compound combination according to the invention or of the agents, concentrates or, generally, formulations prepared therewith, is increased if, if appropriate, other antimicrobially active substances, fungicides, insecticides or other active compounds are added to widen the spectrum of the active compound or to achieve specific effects such as, for example, an additional protection against insects” (Column 3, Lines 31-39). Furthermore, *Lorentzen et al* teach “2-bromo-2-nitropropane-1,3-diol” as an example of particularly advantageous component (Column 4, Line 30).

Accordingly, it would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made to include another microbicidally active component, specifically 2-bromo-2-nitropropane-1,3-diol, in the formulation taught by *Goettsche et al.*, since *Goettsche et al* teach an antimicrobially active composition which includes an alcohol and since *Lorentzen et al* teach that 2-bromo-2-nitropropane-1,3-diol is a particularly useful antimicrobial. Furthermore, *Lorentzen et al* specifically teach the motivation to use multiple microbicides in a single formulation. For the foregoing reasons, claim 4 is *prima facie* obvious.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CRAIG RICCI whose telephone number is (571)270-5864. The examiner can normally be reached on Monday through Thursday, and every other Friday, 7:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Nolan can be reached on (571) 272-0847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CRAIG RICCI/  
Examiner, Art Unit 4161

/Patrick J. Nolan/  
Supervisory Patent Examiner, Art Unit 4161